

REMARKS/ARGUMENTS

Claims 15-18 have been withdrawn from consideration. Claims 1-14 and 19 are pending in the present application. No claim is allowed.

The applicant would like to thank the Examiner for her time during the telephone discussion on July 24, 2003. It helped in better understanding the Examiner's position.

The Rejections under 35 U.S.C. § 102(b)

Claims 1-5, 8-9, 13-14, and 19 were rejected under 35 U.S.C. 102(b) as being anticipated by Lenz et al. (U.S. Patent No. 5,534,751). The Examiner stated that regarding claim 1, the gas sources comprising fluorine and ammonia are considered a matter of intended use since the plasma etching apparatus can be supplied with any type of gas based on the desired process and that intended uses of the particular material used in an etching apparatus have no significance in determining patentability of an apparatus, where the Examiner cited Ex parte Thiabault. The last paragraph of MPEP 2115 states that these cases are limited to claims directed to machinery which works upon an article or material in its intended use. The apparatus does not work "on" fluorine or ammonia (as discussed in MPEP 2115). In addition, the citing of a fluorine gas source and ammonia gas source is not a statement of an intended use, but a positive recitation of physical elements. This is analogous to reciting a 27 MHz RF power source. In such an example a 27 MHz Rf power source would not be anticipated by the disclosure of a power source, and would not be obvious if the applicant is able to provide evidence on why a 27 MHz RF power source is not made obvious by the disclosure of a power source. For the same reason that the recitation of a 27 MHz power source is not a recitation of an intended use, the recitation of a fluorine gas source and an ammonia gas source is not a recitation of an intended use. Lenz does not disclose a fluorine gas source and an ammonia gas source.

During the telephone interview, the Examiner stated that providing a fluorine source and ammonia source is analogous to providing different liquids in a soft drink machine. The Applicants would like to point out that if an inventive soft drink machine added a source for Additive A, which made all other drinks dispensed by the soft drink machine taste twice as good, and improved the soft drink machines so that they were able to go twice as long between maintenance, that a soft drink machine with an extra dispenser for Additive A would be patentable. For at least these reasons, claim 1 is not anticipated by Lenz.

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Dependent claims 2-5, 8-9, 13-14, and 19 are also patentably distinct from Lenz et al. for at least the same reasons as those recited above for claim 1, upon which they ultimately depend. These dependent claims recite additional limitations that further distinguish these dependent claims from the cited references. For example, claim 14 recites that the exhaust system is able to maintain a pressure below 300 mTorr within the chamber walls. The Examiner failed to point out anything in Lenz et al. that discloses this feature. For at least these reasons, claims 2-5, 8-9, 13-14, and 19 are not anticipated by Lenz et al.

The Rejections under 35 U.S.C. § 103(a)

Claims 6, 7, and 10-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lenz et al. (U.S. Patent No. 5,534,751) in view of Westendrop et al. (U.S. Patent No. 5,565,036). The Examiner stated that Westendrop et al. teaches electrode spacing less than one centimeter and that such a spacing provides a high deposition rate. It would not be obvious to combine the closely spaced electrodes of Westendrop et al. in the device of Lenz et al. The high deposition rates of Westendrop et al. do not provide motivation to use them in Lenz et al., since Lenz et al. is for plasma etching, as stated in the title. Since Lenz et al. is used for etching, high deposition rates are not desirable.

The Examiner stated that although Westendrop is used for deposition, similar results will occur in an etching apparatus because the etch rate will increase with an electrode spacing of less than 1 cm. The applicants respectfully request that the Examiner specifically point out where in the cited references it is disclosed that the etch rate will increase with an electrode spacing from less than 1 cm. These claims are ultimately dependent on claim 1. For at least these reasons, claims 6, 7, and 10-12 are not made obvious by Lenz et al. in view of Westendrop et al.

Claims 6, 7, and 10-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lenz et al. (U.S. Patent No. 5,534,751) in view of Ishida et al. (Japanese Patent Publication 05-234594). The Examiner stated that column 6, lines 3-7, lines 51-54, of Ishida teaches that it is known for the upper electrode 12 and the lower electrode 14 to be spaced apart a distance between 1-15 cm. The Examiner then stated that etching uniformity is improved based on the electrode spacing, so that it would be obvious to one of ordinary skill in the art at the time of the invention to space the electrodes apart as taught by Ishida. The Examiner failed to point out anything in Ishida or Lenz that discloses that etching uniformity is improved based on the electrode spacing. The applicants respectfully request that such a reference be specifically pointed out, as required. These claims are ultimately dependent on claim 1. For at least these reasons, claims 6, 7, and 10-12 are not made obvious by Lenz in view of Ishida.

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In view of the foregoing, it is respectfully submitted that the pending claims are patentable over the art cited by the Examiner. Therefore, it is respectfully requested that the rejections under 35 U.S.C. §102(b), and 35 U.S.C. §103(a) be withdrawn and the claims allowed.

Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

If any fees are due in connection with the filing of this Amendment, the commissioner is authorized to deduct such fees from the undersigned's Deposit Account No. 50-0388.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP

A handwritten signature in black ink, appearing to read "Michael Lee", with a long horizontal flourish extending to the right.

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